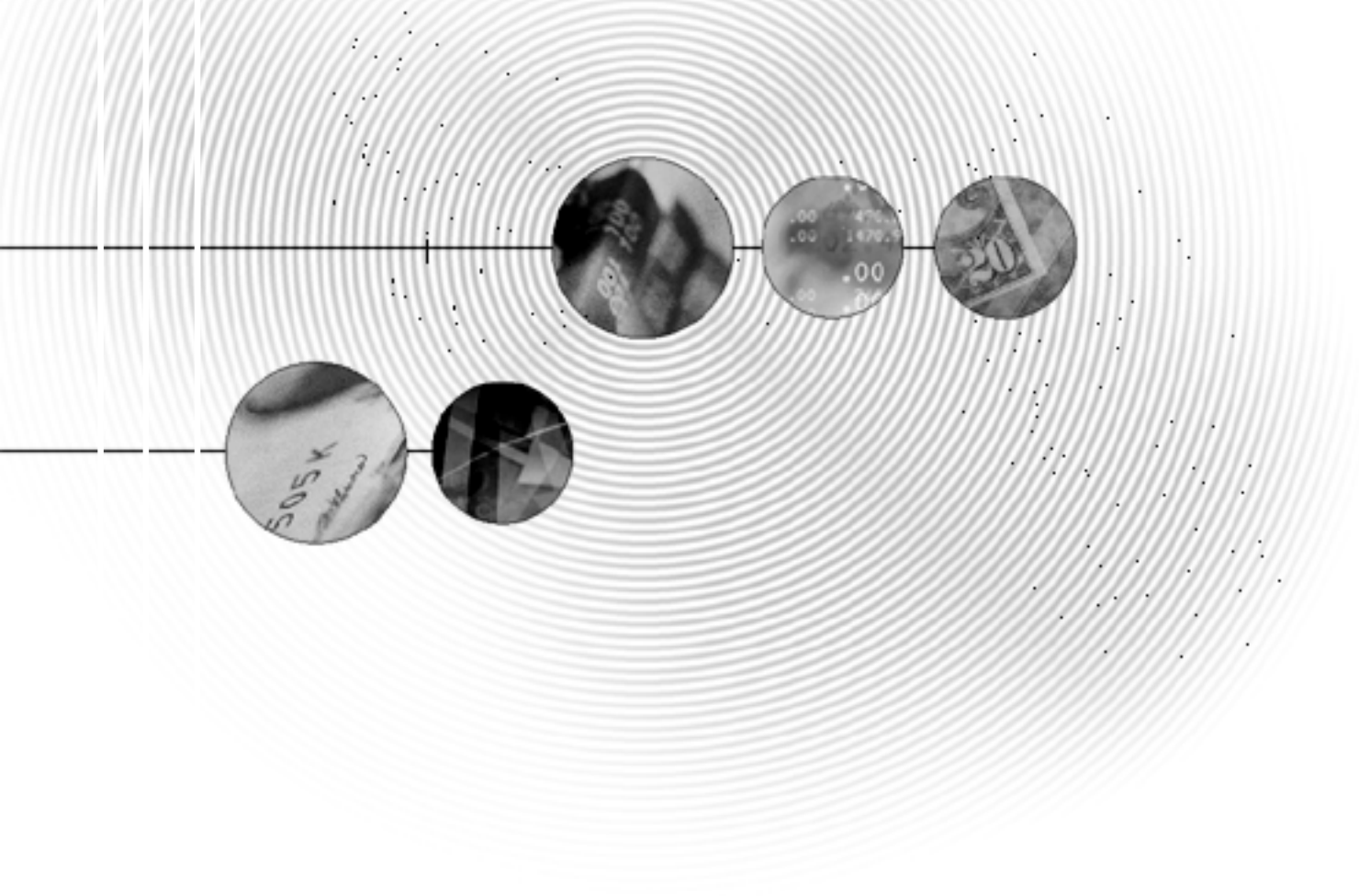
Installing and Programming Caller ID



This publication is applicable to all software revisions.

IM189—320.03 10/00
printed in U.S.A.

COMDIAL®
The Rising Star™

Comdial® strives to design the features in our communications systems to be fully interactive with one another. However, this is not always possible, as the combinations of accessories and features are too varied and extensive to insure total feature compatibility.

Accordingly, some features identified in this publication will not operate if some other feature is activated. Comdial disclaims all liability relating to feature non-compatibility or associated in any way with problems which may be encountered by incompatible features. Notwithstanding anything contained in this publication to the contrary, Comdial makes no representation herein as to the compatibility of features.

Issued: 2/12/97

Contents

1 Introducing the Caller ID Feature 1

Introducing this Manual 1

2 Installing the Caller ID Device 3

Installation Notice 3

Using the System's Installation Instructions 3

Mounting the Caller ID 4

Connecting the Caller ID to the System 5

3 Connecting the Caller ID Serial Ports 9

Using the Connection Matrix 9

Matrix Notes 10

Understanding the Caller ID Serial Ports 11

Connecting a Caller ID to a DXP, DXP Plus, or FXS/FXT 12

Connecting a Caller ID to a DSU II 12

Connecting a Caller ID to a DSU, Model G1632 13

Connecting a Caller ID to a DSU, Models G0408 and G0816 13

Connecting a Caller ID to a Unisyn System with the TX232 Option 14

Connecting a Caller ID to a PC (DB-9 Serial Port) 14

Connecting a Caller ID to a PC (DB-25 Serial Port) 15

Connecting a Comdial Caller ID to Another Comdial Caller ID (Daisy-Chain Connection) 15

Connecting a Comdial Caller ID to a TCI Caller ID (Daisy-Chain Connection) 16

Connecting a TCI Caller ID to a Comdial Caller ID (Daisy-Chain Connection) 17

Connecting a TCI Caller ID to a DXP, DXP Plus, FXS/FXT, or DSU II 18

4 Setting the DIP Switches for Multiple Caller ID Boxes 19

5 Programming the DXP, DXP Plus, and FXS/FXT for the Caller ID Feature 21

Activating Caller ID (software 16A and later) 21
Setting Baud Rate for Caller ID (16A) 22
Setting the Absorb Ring Time (16A) 22
Reviewing Caller ID Ring No-Answer (RNA) Calls (16A) 22
Deleting the Viewed RNA Record (16A) 22
Constructing the Local Call Table (16A) 22
Activating Caller ID (pre-16A software) 23
Setting Baud Rate for Caller ID (pre-16A) 23
Setting the Absorb Ring Time (pre-16A) 23
Reviewing Caller ID Ring No-Answer (RNA) Calls (pre-16A) 23
Deleting the Viewed RNA Record (pre-16A) 24
Constructing the Local Call Table (pre-16A) 24

6 Programming the DSU and the DSU II for the Caller ID Feature 25

Caller ID Service Support 25
Assigning Caller ID Lines (required programming) 27
Assigning Caller ID Stations (required programming) 28
Configuring Data Port B/COM 2 Serial Data Port (required programming) 28
Setting the Audible First Ring Feature (optional programming) 28
Setting the Caller ID Distribution (optional programming) 29
Assigning a SAVE Button (optional programming) 29

7 Programming the Unisyn for the Caller ID Feature 31

Caller ID Service Support 31
Assigning Caller ID Lines (required programming) 32
Assigning Caller ID Stations (required programming) 32
Configuring Data Port B Serial Data Port (required programming) 32
Setting the Audible First Ring Feature (optional programming) 32

8 Rules and Regulations 33

Federal Communications Commission (FCC) Rules and Regulations 33

FCC Part 15 RF Emission Information 33
FCC Part 68 Information 34
FCC Registration Number 34
Terms and Definitions 34
Industry Canada (IC) Rules and Regulations 35
Industry Canada RF Emission Information 35
Industry Canada TELCO Information 35

Index 37

Notes

1 Introducing the Caller ID Feature

The Comdial caller ID feature uses an external caller ID device such as the one illustrated in the figure below. The four models available from Comdial are: CID-04-C, CID-04-C-AR, CID-08-C, and CID-08-C-AR. Depending on the model you have, this hardware device supports either four or eight caller ID conditioned lines per unit. You can serially connect four- and eight-port devices to give larger systems the ability to support a maximum of 68 caller ID conditioned lines. The number of caller ID conditioned lines that can be used on a smaller system such as the DSU/DSU II depend on the system's line capacity.

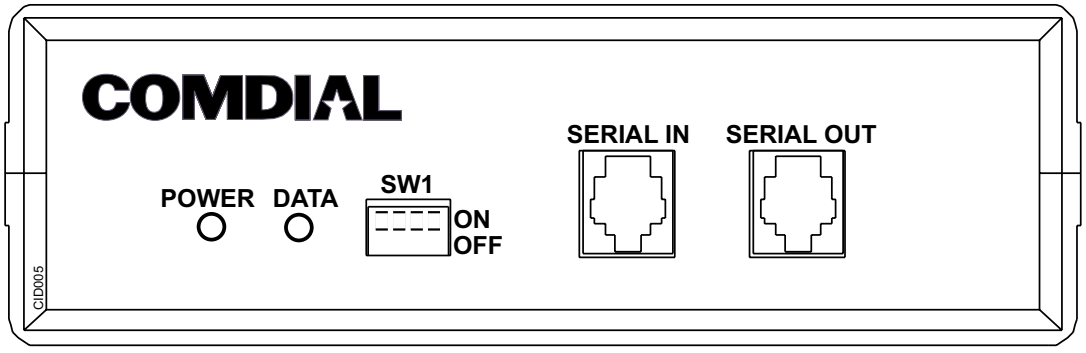
The caller ID unit interfaces with the common equipment cabinet through the appropriate serial data port. Any proprietary LCD speakerphone can receive and display caller ID information. The display conveys all available caller ID information from the time the call rings at the station, until the line disconnects.

The communications system stores caller ID information in its SMDA storage and makes it available in the SMDA printout.

Introducing this Manual

This manual provides you with all of the necessary connection details for installing either a four-port or eight-port Comdial caller ID device on each of the Comdial Communications Systems.

Instructions are also included for connection of TCI caller ID devices to Comdial equipment. These units, manufactured by Tel Control, Inc. for Comdial, were used prior to the availability of the Comdial units.



Caller ID Device

Notes

2 Installing the Caller ID Device

Installation Notice

The Underwriters Laboratories regulation 1459, 2nd edition, requires that you be made aware of the following precautions when installing a telephone that is to be directly connected to the telephone company network:

1. Never install telephone wiring during a lightning storm.
2. Never install telephone jacks in wet locations unless the jack is specifically designed for wet locations.
3. Never touch uninsulated telephone wires or terminals unless the telephone line has been disconnected at the network interface.
4. Use caution when installing or modifying telephone lines.

Using the System's Installation Instructions

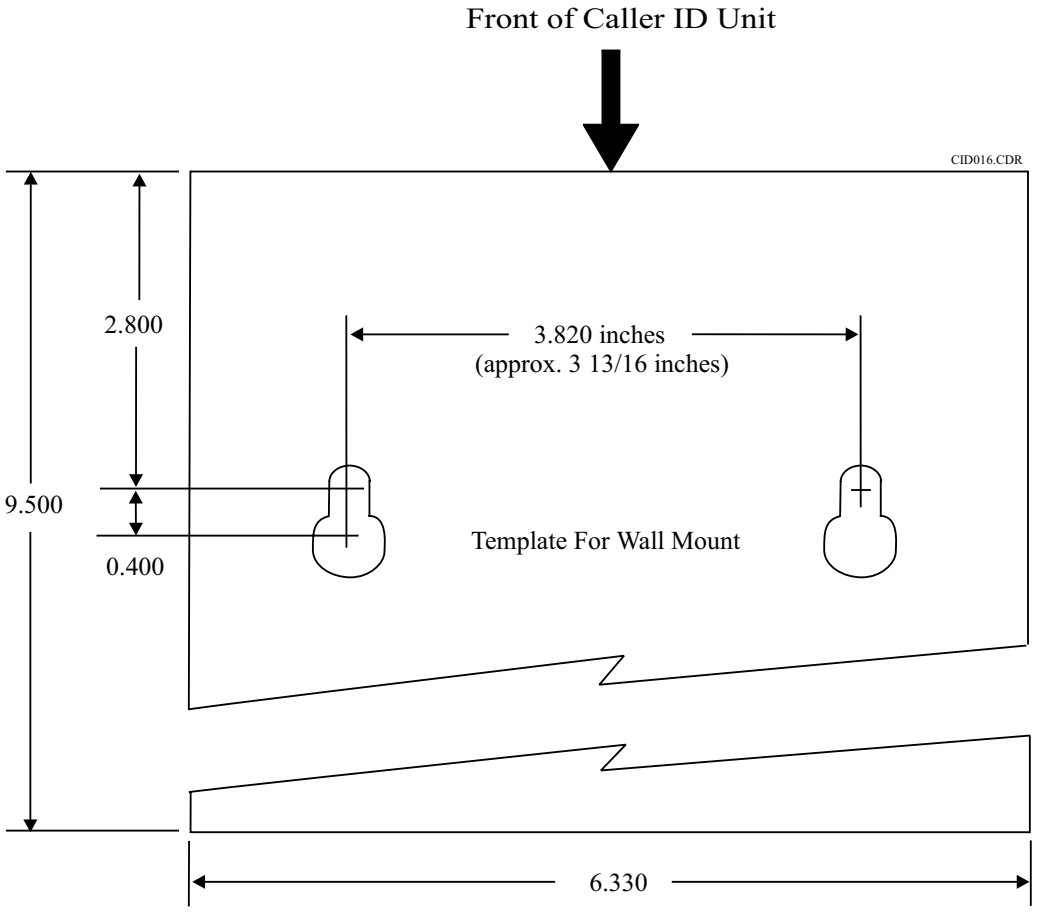
Install the caller ID device with the communications system. If necessary, refer to the following publications for additional information depending on which communications system you have: IMI66–001, Installing the DXP Common Equipment Cabinet; IMI66–105, Installing the DXP Plus Common Equipment Cabinet; IMI66-134 or FX_CABNT.PDF, *Installing the FX Series System Common Equipment Cabinet*. For DSU and DSU II systems, refer to IMI66-107 and IMI66-132 respectively, *System Hardware and Software Instructions.* You can find the appropriate publication in your system hardware instructions binder.

Mounting the Caller ID

You can either surface-mount or wall-mount the caller ID. To surface-mount the device, set it on a flat, solid surface close to the communications system.

To wall-mount the caller ID, follow these steps:

1. Insert two #10 panhead screws (obtained locally) in the wall until their heads are within 1/8-inch of the wall surface. Use the spacing dimensions shown in the template provided in the figure below. Use appropriate anchoring hardware when mounting the device on a hollow wall.
2. Position the keyhole-shaped holes in the bottom of the caller ID device over the screw heads. Slide the device down until a slight click is felt.
3. To remove the caller ID, lift it up to unsnap both screws from the bottom, and then lift it away from the wall.



Template for Caller ID Wall Mounting

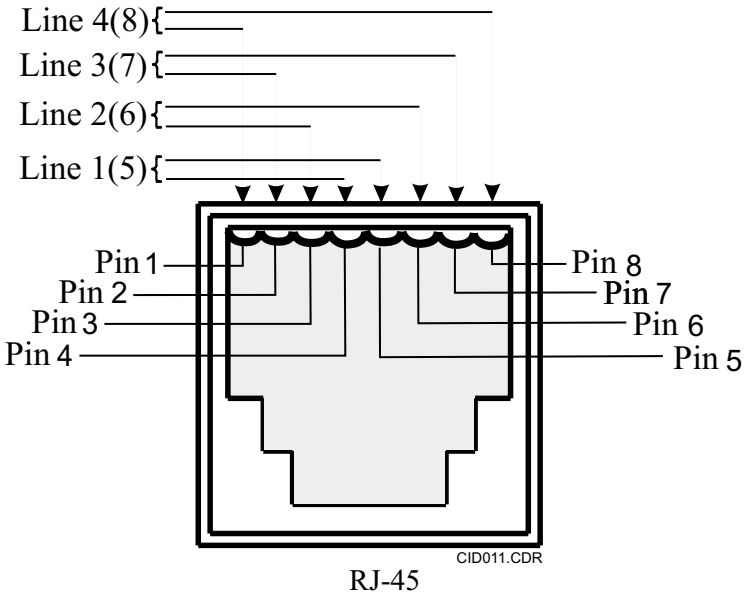
Connecting the Caller ID to the System

To connect the caller ID unit,

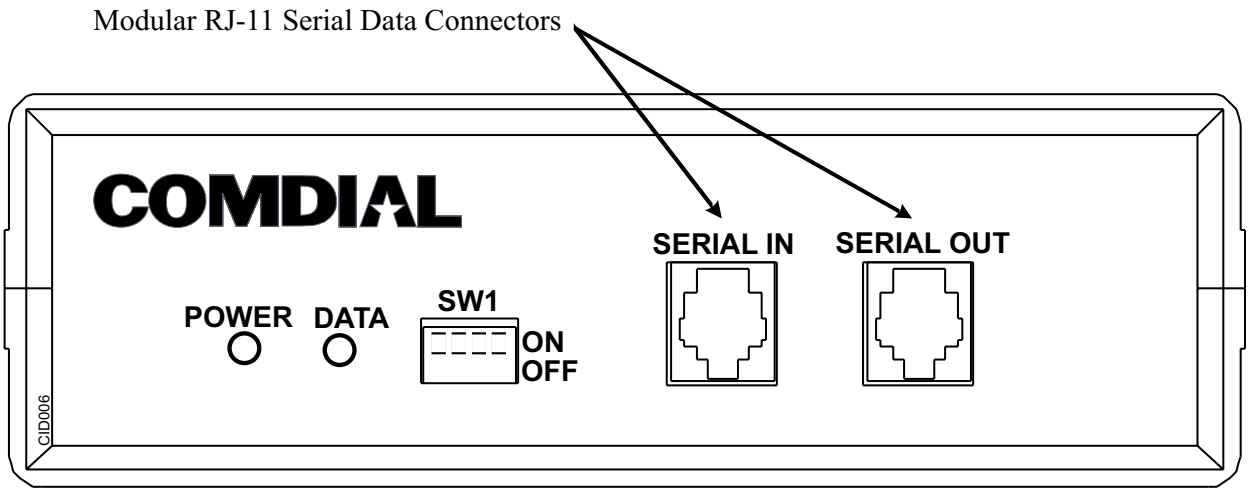
1. Connect the line port modular jacks on the caller ID device to the CO line connections using the kit-supplied cable. See the figure below for connection details and the figures on the next page for the modular jack locations on the caller ID. Also, connect the CO lines to the common equipment's line connections. Always connect line 1 from the caller ID to the first port on the common equipment you are using. For example, line 1 to port 1. Connect the remaining lines in order. Do not skip any ports. If you want to omit a line, omit the last port, never the first port or a port in between. For example, to connect three caller ID lines to a system, connect line 1 to port 1 , line 2 to port 2, and line 3 to port 3 with no connection to port 4. Be sure that the line connections for both the caller ID device and the common equipment are isolated from the incoming CO lines by suitable lightning protection. Failure to use suitable protection may result in circuit noise, hazard to personnel, or equipment damage.

   NOTE: Short any unused input tip-ring pairs together. For example, if you are connecting only lines 1 and 2 on a 4-port caller ID, short together tip and ring of line 3 and short together tip and ring of line 4. This prevents unused line inputs from picking up noise, falsely triggering the caller ID detection circuit.

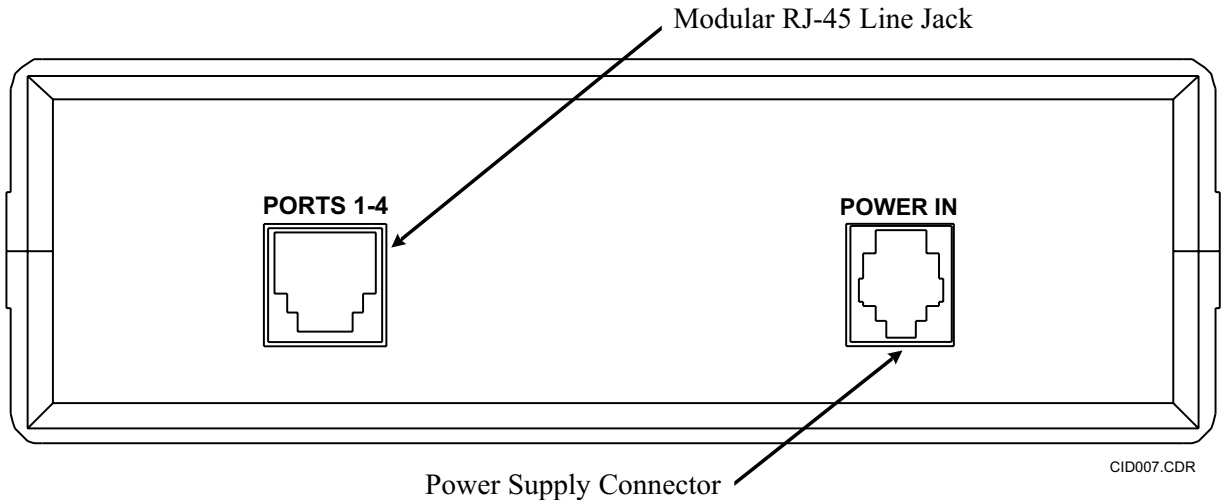
2. Connect the caller ID device's serial data out connector (labeled SERIAL OUT) to the correct serial data port on the common equipment. See Chapter 3 for the serial connection details for each of the communications systems.
3. Connect the caller ID device's power supply to an 120 VAC electrical outlet, and connect the power supply's output cable to the power connector on the rear of the caller ID device illustrated below. Verify the POWER LED is constantly ON.
4. Set the DIP switches SW1 (see Chapter 4).
5. Verify operation by observing the DATA LED. This LED should blink ON during an incoming call on a caller ID enabled line, usually after the first ring burst.



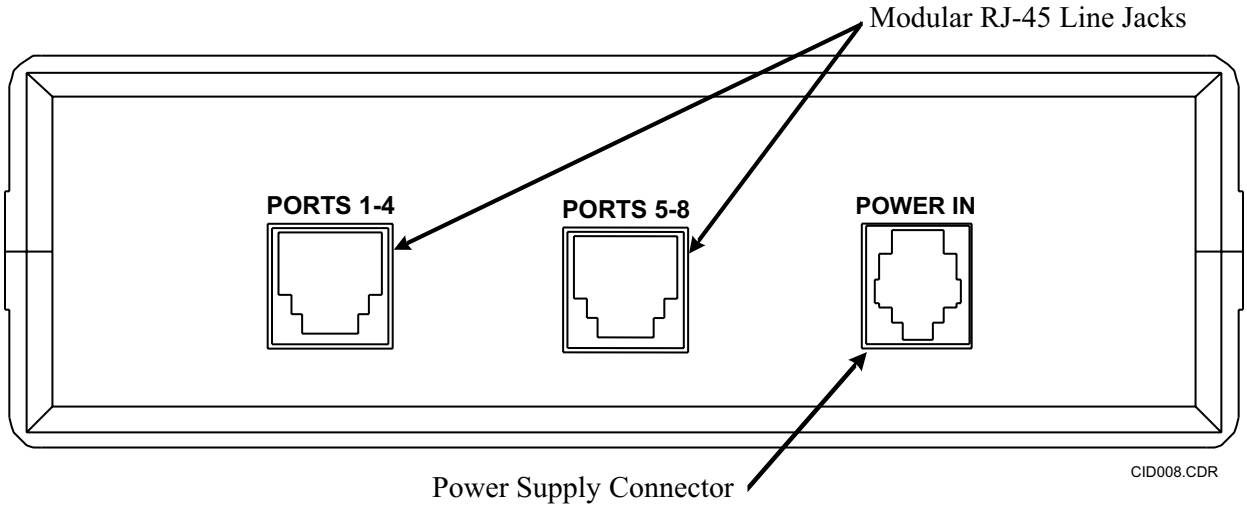
Detailing the Line Connections



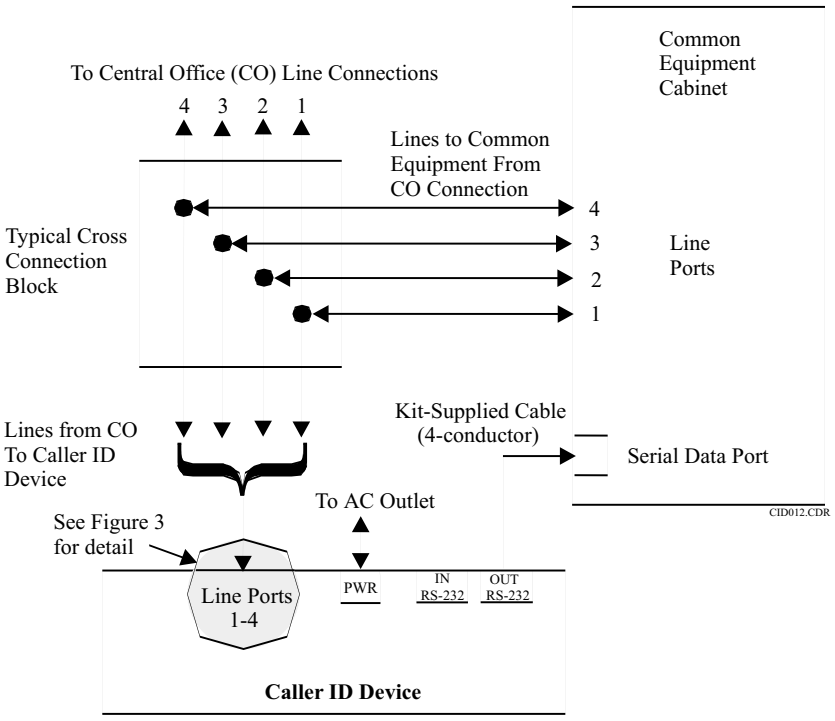
Locating the Caller ID Serial Connections (Front View)



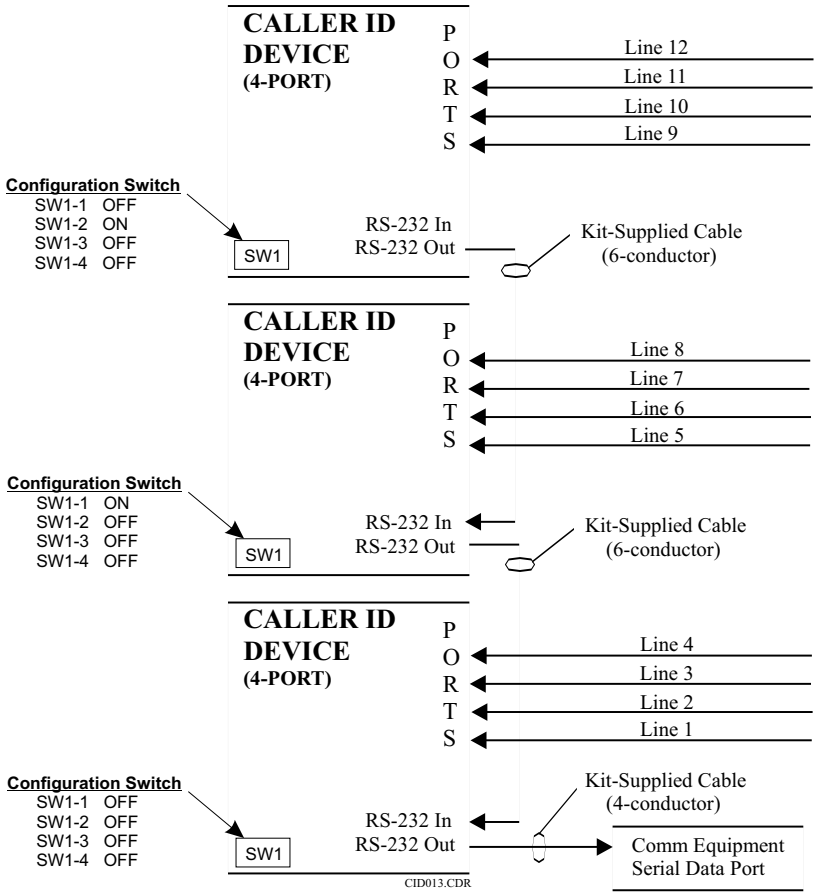
Locating the Four-Port Caller ID Connections (Rear View)



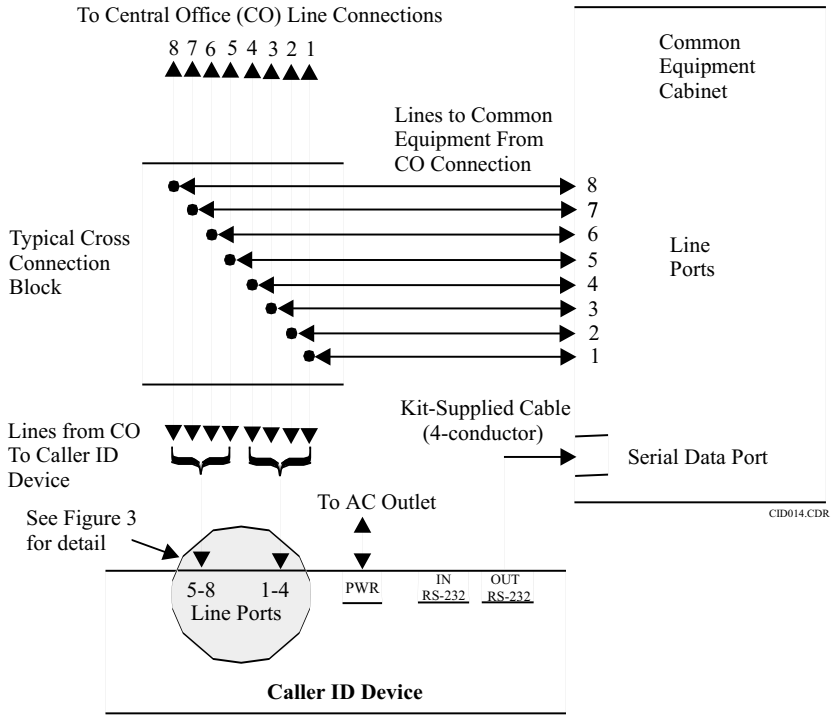
Locating the Eight-Port Caller ID Connections (Rear View)



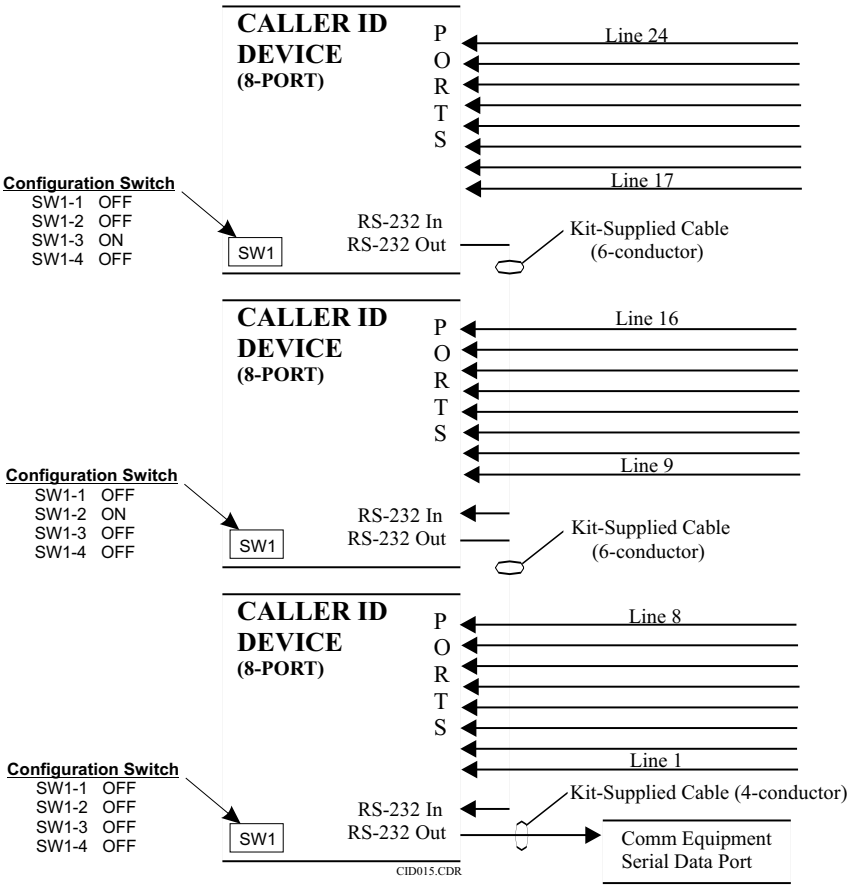
Connecting the Four-Port Caller ID Device and the Communications System



Stacking Four-Port Caller ID Devices



Connecting the Eight-Port Caller ID Device and the Communications System



Stacking Eight-Port Caller ID Devices

3 Connecting the Caller ID Serial Ports

The connection diagrams in this chapter detail how to connect a caller ID unit to each of the Comdial Communications Systems. The Connection Matrix below summarizes all of the serial connection information you should need to install a caller ID system. The matrix provides you with the following details:

- name of equipment to which you are connecting the caller ID device,
- serial port on the equipment to use for caller ID,
- serial port connector type,
- interconnection cable type and adapter,
- serial port configuration.

Using the Connection Matrix

The Connection Matrix specifies the equipment to be used with each Comdial Communications System. If you need further information, refer to the sections following the matrix.

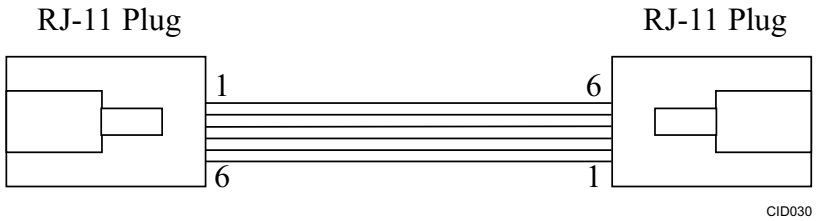
Connection to -	Common Equipment Serial Port to use	Serial Port Connector	Cable and Adapter to use	Serial Port Configuration
DXP Plus	COM3 or higher (on DXOPT-COM option board)	RJ-11 Jack	Four-conductor, rolled cable, RJ-11 plug on each end. (Six-conductor cord can be used but flow control must be turned ON. (Default is OFF)	9600, 8, N, 1 No flow control.
DXP	Any	RJ-11 Jack	Four-conductor, rolled cable, RJ-11 plug on each end. (Six-conductor cord can be used but flow control must be turned ON. (Default is OFF)	9600, 8, N, 1 No flow control.
FX	Any	RJ-11 Jack	Four-conductor, rolled cable, RJ-11 plug on each end. (Six-conductor cord can be used but flow control must be turned ON. (Default is OFF)	9600, 8, N, 1 No flow control.
DSU II	COM2 only	RJ-11 Jack	Four-conductor, rolled cable, RJ-11 plug on each end.	9600, 8, N, 1
DSU I G1632	RS-232, Port B	RJ-11 Jack	Four-conductor, rolled cable, RJ-11 plug on each end. (Six-conductor cord can be used with the outer pair unconnected.)	9600, 8, N, 1
DSU I G0408, G0816	RS-232, Port B	50-pin station connector (four conductors per serial port)	Four-conductor, rolled cable, RJ-11 plug on each end. Also use RJ-11 adapter jack to punch-down block.	9600, 8, N, 1
Unisyn TS308, TS616	RS-232, #2 (on TX232 option board)	DB-9 male	Four-conductor, rolled cable, RJ-11 plug on each end. Also use RJ-11 to DB-9 adapter JK504-003.	9600, 8, N, 1

Connection to -	Common Equipment Serial Port to use	Serial Port Connector	Cable and Adapter to use	Serial Port Configuration
PC, DB-25 Serial Port	Standard COM port	DB-25 male	Four- or six-conductor, rolled cable, RJ-11 plug on each end. Also RJ-11 to DB-25 adapter JK504-100 (this adapter does not connect flow control).	9600, 8, N, 1 Flow control OFF.
PC, DB-9 Serial Port	Standard COM port	DB-9 male	Six-conductor rolled cable, RJ-11 plug on each end. Also use RJ-11 to DB-9 adapter JK504-004. (Four-conductor cable can be used without flow control.)	9600, 8, N, 1 Flow control ON.
Comdial caller ID unit to another Comdial caller ID unit (daisy-chain)	Serial OUT on one unit to Serial IN on the other unit	RJ-11 Jack to RJ-11 Jack	Six-conductor rolled cable, RJ-11 plug on each end.	9600, 8, N, 1 Flow control ON (fixed).
Comdial caller ID unit to TCI caller ID (daisy-chain)	Comdial "Serial OUT" to TCI "RS-232 IN"	Comdial: RJ-11 TCI: DB-9 male	Six-conductor rolled cable, RJ-11 plug on each end. Also, use RJ-11 to DB-9 adapter JK504-004	9600, 8, N, 1 Flow control ON (fixed).
TCI caller ID unit to Comdial caller ID unit (daisy-chain)	TCI "RS-232 OUT" to Comdial "Serial In"	TCI: DB-9 female Comdial: RJ-11	Six-conductor rolled cable, RJ-11 plug on each end. Also, DB-9 to RJ-11 adapter JK508-001. DO NOT USE TCI ADAPTER CABLE TCI-6038.	9600, 8, N, 1 Flow control ON (fixed).
TCI caller ID unit to DXP, DXP Plus, FX, DSU II	DXP: COM1 or COM2. DXP Plus: COM3 or higher on DXOPT-COM option board. FX: COM3 or higher on FXCOM232 board.	TCI: DB-9. DXP, DXP Plus, FX, DSU II: RJ-11 Jack	TCI adapter cable (TCI part number TCI-6038) with DB-9 plug on one end and RJ-11 plug on the other end.	9600, 8, N, 1 No flow control.

Matrix Notes

1. System's flow control (RTS, CTS) must be ON for six-conductor cable connections. Flow control is not required for four-conductor cable.
2. Rolled cable reverses pins on opposite ends; that is, pin 1 to pin 6, pin 2 to pin 5, etc.
3. For the caller ID's *Serial Out* to system connection, only the GND and TXD are really required. This is because the default (no connect) state on the CTS input is flow enabled.

The standard six-conductor line cable is shown below. This illustrates how the pins are reversed from one end to the other. This effectively rolls the signals over, giving the cable its name.



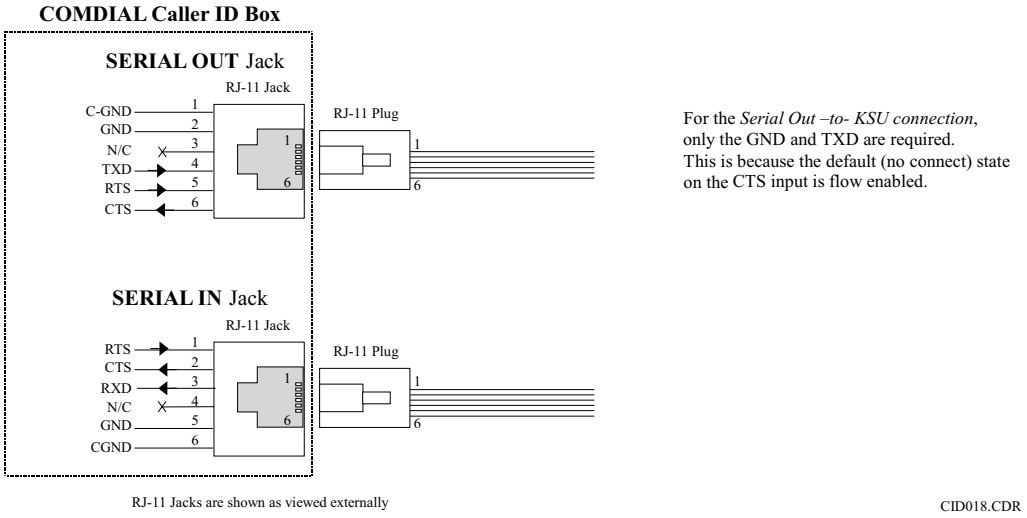
Six-conductor Rolled Cable

Understanding the Caller ID Serial Ports

The following table describes the signals that are associated with the individual pins on both the *Serial Out* and *Serial In* RJ-11 jacks located on the Comdial caller ID units.

RJ-11 Pin Number	*Serial OUT Jack*	*Serial IN Jack*
1	Auxiliary Ground	Request To Send (RTS) (output)
2	Signal Ground (GND)	Clear To Send (input)
3	No connect	RX Data (RXD) (input)
4	TX Data (TXD) (output)	No Connect
5	Request To Send (RTS) (output)	Signal Ground (GND)
6	Clear To Send (CTS) (input)	Auxiliary Ground

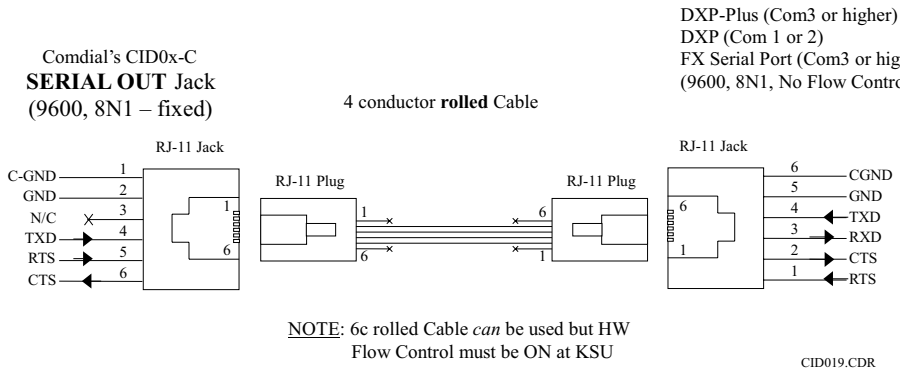
Both of the serial ports are configured for only one setting: 8 data bits, no parity bit, 1 stop bit (8N1) at 9600 baud. These parameters cannot be changed. The flow control is always turned ON for both serial ports but the default (no connection) state is flow enabled (that is, both CTS inputs default to the active state). Also, both RTS output signals are defaulted to the active state (-5V). For the Serial Out to system connection, only GND and TXD are required. The serial port connections are illustrated below.



Caller ID Serial Ports

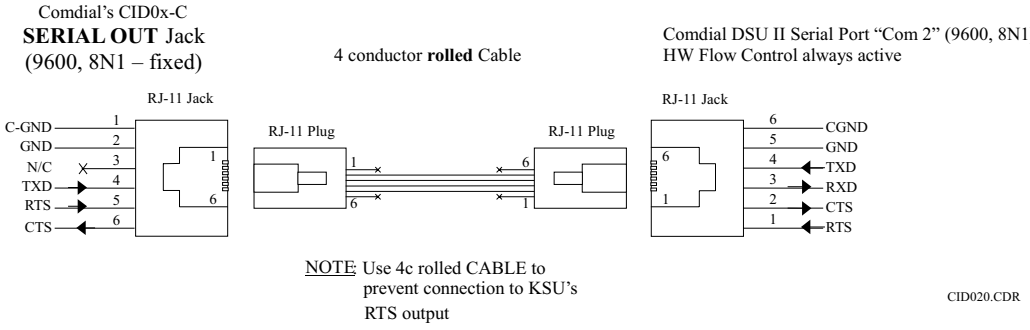
Connecting a Caller ID to a DXP, DXP Plus, or FXS/FXT

To connect a Comdial caller ID unit to either a DXP, DXP Plus, or FXS/FXT communications system, use a four-conductor rolled telephone cable and turn Flow Control **OFF** on the communications system. You can use a standard six-conductor cable, but you must turn Flow Control **ON** on the communications system. See the connection diagram below.



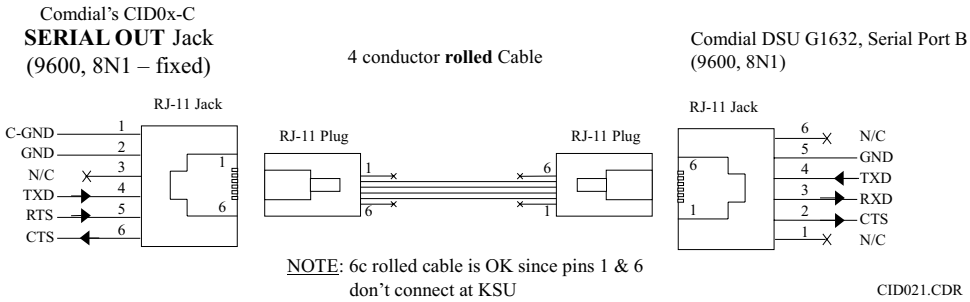
Connecting a Caller ID to a DSU II

The DSU II family of digital communications systems consist of three models—J1632, J0816, and J0408. To connect a Comdial caller ID unit to one of these models, use a four-conductor rolled telephone cable. Because Flow Control is always active on these models, you must use the four-conductor cable to prevent connection the RTS output. See the connection diagram below.



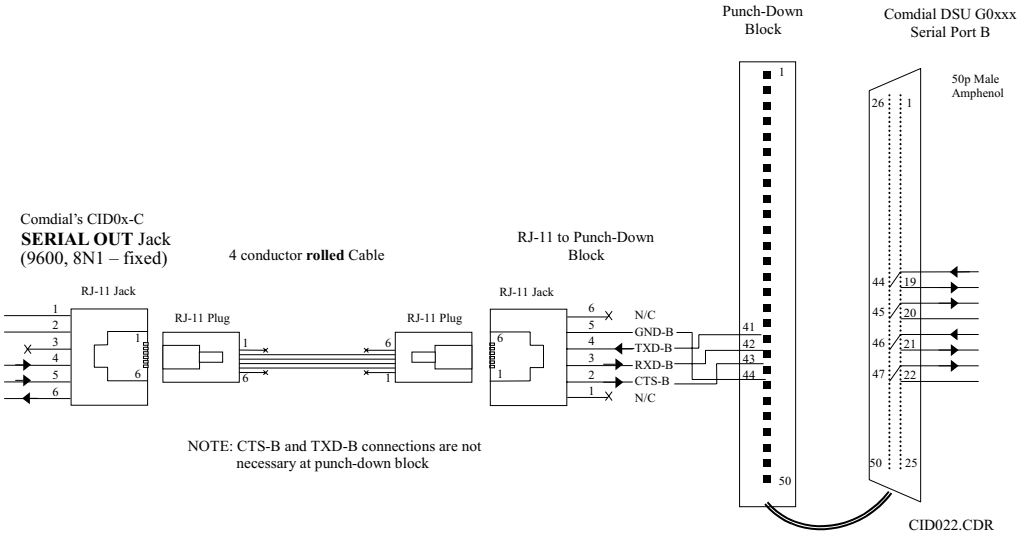
Connecting a Caller ID to a DSU, Model G1632

The DSU digital communications system includes the Model G1632. To connect a Comdial caller ID unit to this model, use a four-conductor rolled telephone cable. You can also use a six-conductor rolled cable because pins 1 and 6 are not connected on the communications system end. See the figure below for a connection diagram of this configuration.



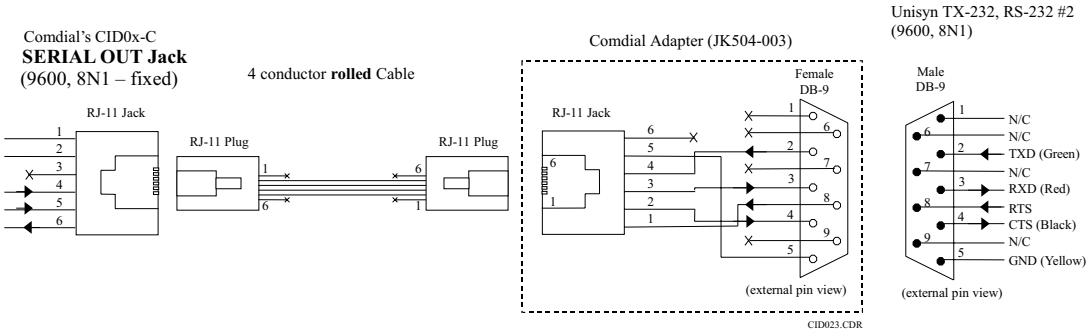
Connecting a Caller ID to a DSU, Models G0408 and G0816

The DSU digital communications system includes Models G0408 and G0816. To connect a Comdial caller ID unit to one of these models, use a four-conductor rolled telephone cable. You do not need to make the CTS-B and TXD-B connections at the punch-down block.



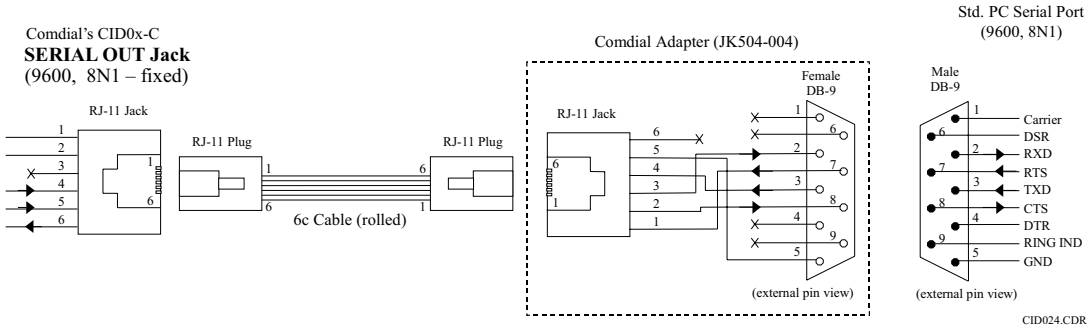
Connecting a Caller ID to a Unisyn System with the TX232 Option

Use the RS-232 #2 serial port on the Unisyn telephone system for connecting a Comdial caller ID unit. The Unisyn system must include the TX232 option board. Use a four-conductor rolled cable to make this connection. The diagram below illustrates this configuration.



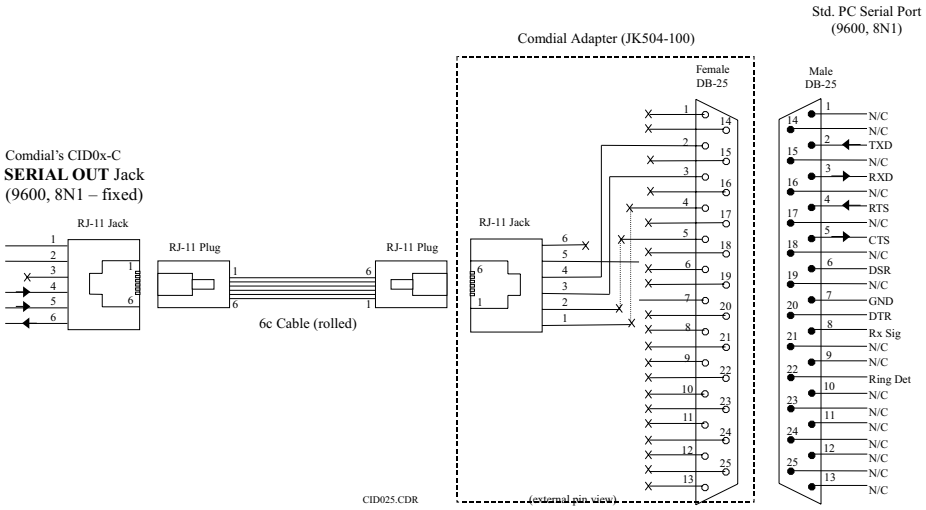
Connecting a Caller ID to a PC (DB-9 Serial Port)

When connecting a Comdial caller ID unit to a DB-9 serial port on a personal computer (PC), use a six-conductor rolled telephone cable. Plug one end of the cable into the SERIAL OUT jack on the caller ID unit and the other end into an RJ-11 to DB-9 adapter (Comdial part number JK504-004).



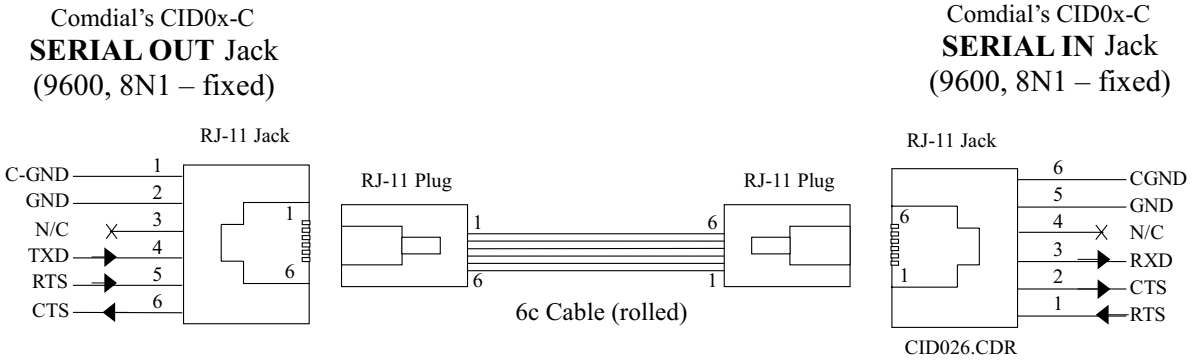
Connecting a Caller ID to a PC (DB-25 Serial Port)

When connecting a Comdial caller ID unit to a DB-25 serial port on a personal computer (PC), use a six-conductor rolled telephone cable. Plug one end of the cable into the SERIAL OUT jack on the caller ID unit and the other end into an RJ-11 to DB-25 adapter (Comdial part number JK504-100).



Connecting a Comdial Caller ID to Another Comdial Caller ID (Daisy-Chain Connection)

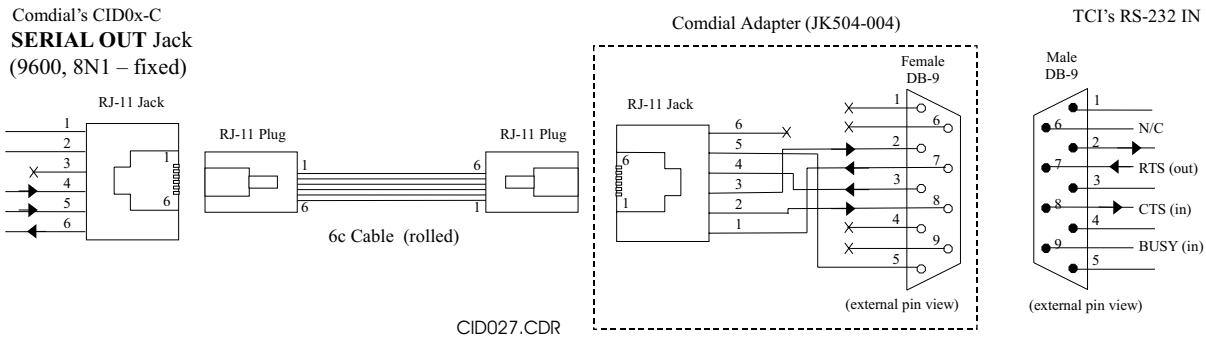
This method of interconnecting caller ID devices is also called stacking. This allows you to place caller ID onto more lines. You can use four-port caller ID devices or eight-port devices. Also, you can mix the two in any combination to get a total of 68 lines if the last unit has eight ports. If the last caller ID unit has four ports, the possible combined total is 64 lines. Use a six-conductor rolled telephone cable to connect the SERIAL OUT jack on one caller ID unit to the SERIAL IN jack on the next caller ID unit. See the figure below for a diagram of this configuration. See Table 1 on page 19 for required DIP switch settings.



Connecting a Comdial Caller ID to a TCI Caller ID (Daisy-Chain Connection)

This method of interconnecting caller ID devices is also called stacking. This allows you to place caller ID onto more lines. You can use four-port caller ID devices or eight-port devices. The caller ID devices can be Comdial units or TCI units that were manufactured for Comdial. Also, you can mix the two in any combination to get a total of 68 lines if the last unit has eight ports. If the last caller ID unit has four ports, the possible combined total is 64 lines.

Use a six-conductor rolled telephone cable to connect the SERIAL OUT jack on the Comdial unit and the RJ-11 to DB-9 adapter on the TCI unit. See the figure below for a diagram of this configuration. See Table 1 on page 19 for required DIP switch settings.

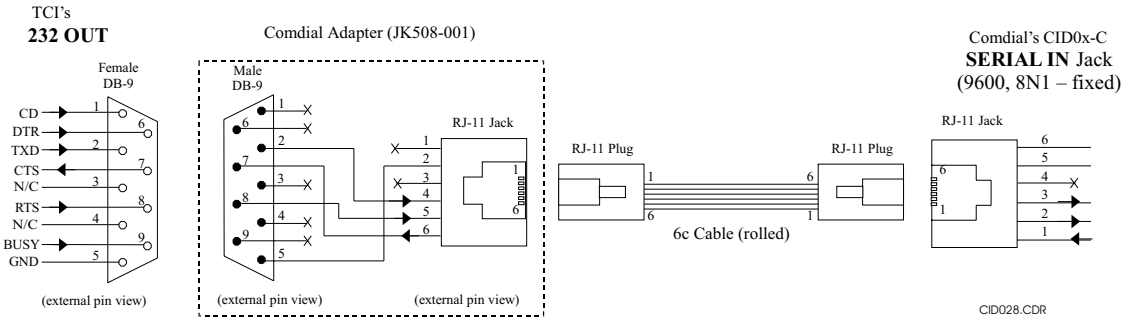


Connecting a TCI Caller ID to a Comdial Caller ID (Daisy-Chain Connection)

This method of connecting caller ID devices is also called stacking. This allows you to place caller ID onto more lines. You can use four-port caller ID devices or eight-port devices. The caller ID devices can be Comdial units or TCI units that were manufactured for Comdial. Also, you can mix the two in any combination to get a total of 68 lines if the last unit has eight ports. If the last caller ID unit has four ports, the possible combined total is 64 lines.

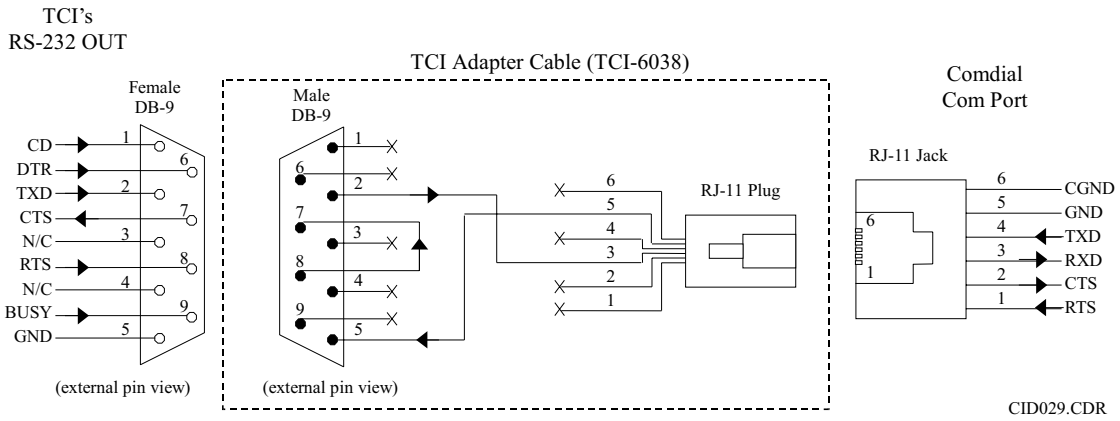
Use a six-conductor rolled telephone cable to connect the RJ-11 to DB-9 adapter on the TCI unit to the SERIAL IN jack on the Comdial unit. See Table 1 for required DIP switch settings.

DO NOT USE TCI ADAPTER CABLE TCI-6038.



Connecting a TCI Caller ID to a DXP, DXP Plus, FXS/FXT, or DSU II

To connect a TCI caller ID unit to either a DXP, DXP Plus, FXS/FXT, or DSU II communications system, use a TCI adapter cable (TCI part number TCI-6038). Plug one end of the adapter cable into the DB-9 connector (RS-232 OUT) on the TCI unit. Plug the other end of the adapter cable into the appropriate COM port (RJ-11 jack) on the Comdial communications system.



4 Setting the DIP Switches for Multiple Caller ID Boxes

The Comdial caller ID device has a bank of Dual In-Line Pin (DIP) switches located on its front panel. This bank of switches, illustrated in the figure on the next page, is labeled SW1.

There are no DIP switches for setting baud rate, data bits, parity, and stop bits. These parameters are fixed at 9600 baud, 8 data bits, no parity bits, and 1 stop bit (9600, 8, N, 1).

When installing multiple caller ID devices, set switches SW1-1 through SW1-4 to the settings detailed in Table 1. The switch settings must match those in the table corresponding to the trunk number you are attaching to port one of the caller ID device.

A DIP switch is ON when it is in the UP position.

Table 1: Four- and Eight-Port Caller ID DIP Switch Settings

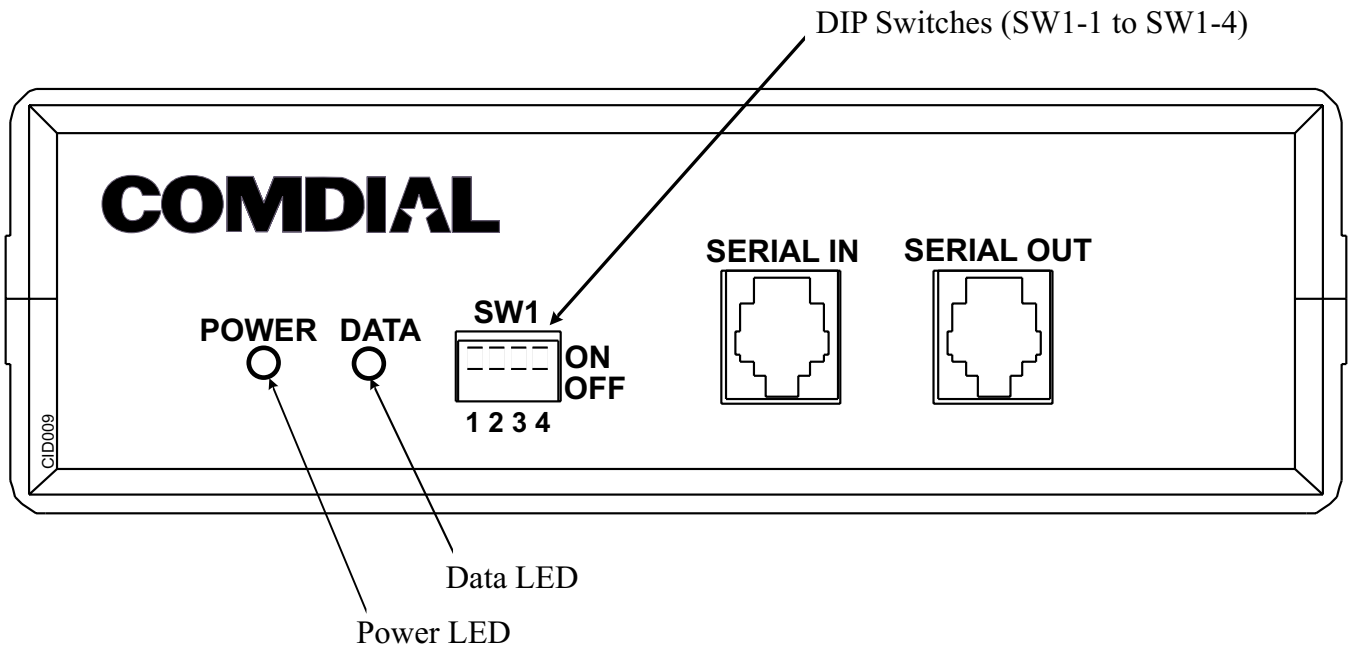
Box Number		Switch Settings For SW1				Trunk Number Attached to Caller ID Port 1
4-Port	8-Port	1	2	3	4	
1	1	OFF	OFF	OFF	OFF	1
2		ON	OFF	OFF	OFF	5
3	2	OFF	ON	OFF	OFF	9
4		ON	ON	OFF	OFF	13
5	3	OFF	OFF	ON	OFF	17
6		ON	OFF	ON	OFF	21
7	4	OFF	ON	ON	OFF	25
8		ON	ON	ON	OFF	29
9	5	OFF	OFF	OFF	ON	33
10		ON	OFF	OFF	ON	37
11	6	OFF	ON	OFF	ON	41
12		ON	ON	OFF	ON	45
13	7	OFF	OFF	ON	ON	49
14		ON	OFF	ON	ON	53
15	8	OFF	ON	ON	ON	57
16		ON	ON	ON	ON	61

NOTE: It is possible to mix 4-port and 8-port boxes in any combination. A total number of 68 lines can be supported if the first 15 boxes are 4-port and the last box is a 8-port box.

For example, any of the combinations in Table 2 would be acceptable for a 16-line installation.

Table 2: Possible Combinations of Caller ID Boxes for a 16-line Installation

Box	Combination 1	Combination 2	Combination 3
1	8-port box lines 1-8	8-port box lines 1-8	4-port box lines 1-4
2			4-port box lines 5-8
3	8-port box lines 9-16	4-port box lines 9-12	4-port box lines 9-12
4		4-port box lines 13-16	4-port box lines 13-16



Locating the DIP Switches

NOTE: The DIP switch (SW1) is labeled correctly for proper operation of the CID unit. Please disregard any other designations on the DIP switch.

5 Programming the DXP, DXP Plus, and FXS/FXT for the Caller ID Feature

In programming the common equipment for caller ID support, you must,

1. Match the data baud rate with that of the caller ID device (9600, 8, N, 1).
2. Enable the caller ID lines.
3. Assign them to ring on the telephones.

Calls will ring on the assigned telephones as well as on telephones to which a call is transferred. In addition, caller ID programming options allow you to set the absorb ring time (amount of time the system waits while it generates caller ID information before it generates system ringing); enable the deleting of the viewed RNA records when viewed by any user; and enter the local area codes and local exchange codes that you want the system to skip when it automatically dials a return call. You can also assign caller ID ring no-answer (RNA) capability to the telephones that are on caller ID lines. Users of these telephones have the ability to review this caller ID RNA information and return the call. They can also note if anyone else has already viewed a record thus preventing redundant returns.

A station user may automatically retrieve and dial the last, first, or any in between caller ID number displayed at his or her station by using a **SAVE** button assigned to the station.

Also, a station user may transfer calls to another station causing that station to ring. If the other station has caller ID capability, the caller information will also transfer.

Activating Caller ID (software 16A and later)

When caller identification (ID) information is available from the central office, you must take the following programming actions in VMMI to make caller ID active in the system:

1. Turn on the caller ID feature for the line ports.
   PROGRAMMING | LINES | "CALLER ID ACTIVE"
2. Assign the caller ID lines to the stations as delayed or direct ringing lines.
   PROGRAMMING | STATIONS | "DELAYED RING" "DIRECT RING" etc.
3. Enable line answer and line originate in a class of service.
   PROGRAMMING | STATION MENU | CLASS OF SERVICE | "ORIGINATE ON LINES" "ANSWER ON LINES"
4. Assign the line answer and line originate class of service to the stations (as day COS and/or night COS).
   PROGRAMMING | STATIONS | "DAY COS" "NIGHT COS"
5. Assign special-purpose station buttons to control the feature.
   PROGRAMMING | STATIONS | "STATION BUTTON MAP"

Setting Baud Rate for Caller ID (16A)

You must program the parameters of the serial data port where you have connected the caller ID device. The serial data port parameters must match the data parameters of the caller ID device which are 9600 baud, eight data bits, no parity bit, and one stop bit. Flow control or handshaking is **None**. Program the serial data port parameters from the following VMMI programming screen:

PROGRAMMING | SYSTEM . . . | SERIAL PORTS

Setting the Absorb Ring Time (16A)

You must specify the amount of time the system waits while it generates caller ID information before it generates system ringing. If you set this to a low value (three seconds or less), the caller ID information may not be displayed before the telephone begins ringing. Program this time from the following VMMI programming screen:

PROGRAMMING | PERIPHERALS . . . | CALLER ID

Reviewing Caller ID Ring No-Answer (RNA) Calls (16A)

This feature offers telephone users the ability to use their telephone's display to review calls that ring at their stations while they are away. The system stores caller ID RNA records and allows users to review them and use one-button dialing to return those calls that need returning. The feature also displays the identification of the last station that reviewed the records thus helping to prevent multiple call backs to the same number. After users review the caller ID RNA records, the system deletes the records from their telephones yet retains the records in the SMDA storage so that the users can look at the records later if they must. Activate this feature with action taken on the following VMMI programming screen:

PROGRAMMING | STATIONS |

Deleting the Viewed RNA Record (16A)

When the system makes caller ID RNA information available to a group of stations, any station user in the group can review the information by pressing the telephone's CID button. When he or she does this, the system removes the record from that telephone but continues to flash the CID button status light for other stations in the group. If you enable this feature, the system will remove the caller ID record from all telephones if any user in the group views a record. Enable this feature from the following VMMI programming screen:

PROGRAMMING | PERIPHERALS | CALLER ID

Constructing the Local Call Table (16A)

When users review caller ID RNA calls, they can press the **SAVE** button to return the call. If the area code or office code part of the stored number matches the entries that you program with this procedure, the system will skip that part of the number as it dials. Take programming action on the following VMMI programming screen to choose those area and office codes that you want the system to skip:

PROGRAMMING | PERIPHERALS | CALLER ID

Activating Caller ID (pre-16A software)

When caller identification (ID) information is available from the central office, you must take the following programming actions in VMMI to make caller ID active in the system:

1. Turn on the caller ID feature for the line ports.
   LINES | LINE PROGRAMMING | LINE TYPE SPECIFIC | . . .
2. Assign the caller ID lines to the stations as delayed or direct ringing lines.
   STATIONS | STATION PROGRAMMING | RINGING ASSIGNMENTS | . . .
3. Enable line answer and line originate in a class of service.
   STATIONS | CLASS OF SERVICE | PAGE 5 | . . .
4. Assign the line answer and line originate class of service to the stations (as day COS and/or night COS).
   STATIONS | STATION PROGRAMMING | GENERAL | . . .
5. Assign special-purpose station buttons to control the feature.
   STATIONS | STATION PROGRAMMING | BUTTON MAPPING | . . .

Setting Baud Rate for Caller ID (pre-16A)

You must program the parameters of the serial data port where you have connected the caller ID device. The serial data port parameters must match the data parameters of the caller ID device which are 9600 baud, eight data bits, no parity bit, and one stop bit. Flow control or handshaking is **None**. Program the serial data port parameters from the following VMMI programming screen:

SYSTEM | SERIAL PORTS . . .

Setting the Absorb Ring Time (pre-16A)

You must specify the amount of time the system waits while it generates caller ID information before it generates system ringing. If you set this to a low value (three seconds or less), the caller ID information may not be displayed before the telephone begins ringing. Program this time from the following VMMI programming screen:

PERIPHERALS | CALLER ID | OPTIONS | . . .

Reviewing Caller ID Ring No-Answer (RNA) Calls (pre-16A)

This feature offers telephone users the ability to use their telephone's display to review calls that ring at their stations while they are away. The system stores caller ID RNA records and allows users to review them and use one-button dialing to return those calls that need returning. The feature also displays the identification of the last station that reviewed the records thus helping to prevent multiple call backs to the same number. After users review the caller ID RNA records, the system deletes the records from their telephones yet retains the records in the SMDA storage so that the users can look at the records later if they must. Activate this feature with action taken on the following VMMI programming screen:

STATIONS | STATION PROGRAMMING | RINGING ASSIGNMENTS | . . .

Deleting the Viewed RNA Record (pre-16A)

When the system makes caller ID RNA information available to a group of stations, any station user in the group can review the information by pressing the telephone's CID button. When he or she does this, the system removes the record from that telephone but continues to flash the CID button status light for other stations in the group. If you enable this feature, the system will remove the caller ID record from all telephones if any user in the group views a record. Enable this feature from the following VMMI programming screen:

PERIPHERALS | CALLER ID | OPTIONS . . .

Constructing the Local Call Table (pre-16A)

When users review caller ID RNA calls, they can press the **SAVE** button to return the call. If the area code or office code part of the stored number matches the entries that you program with this procedure, the system will skip that part of the number as it dials. Take programming action on the following VMMI programming screen to choose those area and office codes that you want the system to skip:

PERIPHERALS | CALLER ID | LOCAL CALL TABLE | . . .

6 Programming the DSU and the DSU II for the Caller ID Feature

Caller ID Service Support

You must program lines and stations for caller ID service per the instructions in this chapter.

NOTE: When programming using the telephone, a lighted LED next to the programming button for the selection indicates the current status. When a single button provides a toggle (on/off) action, the lighted LED indicates the active feature.

Since the station receives caller ID data between the first and second rings, you can arrange for the first ring on caller ID lines to be either audible or silent. Selecting the silent option ensures that the caller ID data is displayed prior to ringing thereby eliminating the loss of caller ID data because of premature answering.

A station user may automatically retrieve and dial the last caller ID number displayed at his or her station by using a **SAVE** button assigned to the station.

CAUTION

Seven-, eight-, and 11-digit numbers are always dialable while 10-digit numbers must be transformed by the system before they are dialable. To arrange for the system to transform a 10-digit number into dialable format, you must use the VDT programming method to program the local area code and 6-digit area/office codes into the system's memory. You cannot do this from station 10 or 12.

All caller ID features require that the customer-supplied caller ID interface deliver its data to the system's RS232 data port, data port B/COM2. You must configure this port to match the output of the decoder device. The configuration is 9600 baud, with eight data bits, no parity, and one stop bit (8N1).

The system provides caller ID information as part of the SMDR printout. An example of this appears below.

Caller ID Information on SMDR Printout

Call #	Station #	Line #	Date	Time	Call length	Answer Time	Called or Calling #	Call Cost
1	1000	12	10/15/92	04:38	0.1		123456789 0123456	$ 0.51
2	12	3	10/15/92	00:56	0.2		5551212	
3		1	10/15/92	00:56	NOANS	.2	/5551234	
4	10	1	10/15/92	00:56	0.1	.1	/5551234	
5		4	10/15/92	01:00	NOANS	.2		
6	10	4	10/15/92	01:00	0.1	.0		
7	10	1(D)	10/15/92	04:23	0.2	.1	/5556789	$ 0.00
8	10	1(D)	10/15/92	04:19	0.2	.1		$ 0.00

(1) outgoing call
(2) outgoing call
(3) unanswered incoming call, with caller ID
(4) answered incoming call, with caller ID
(5) unanswered incoming call, without caller ID
(6) answered incoming call, without caller ID
(7) answered incoming DISD call, with caller ID
(8) unanswered incoming DISD call, without caller ID

If SMDR printout is not already turned on (default), turn it on as follows:

1. Press **ITCM** and dial ✳**#746**✳.
2. Dial **772** *"SMDR PRINT XXX"*
3. Dial **1** to enable printout *"SMDR PRINT ON"*
4. Dial ✳✳ for configuration mode or **SPEAKER** to quit.

As an option, you can arrange for the system to provide caller ID data distribution through the RS232 data port B/COM 2 to a personal computer (PC) just as it supplies SMDA data to a data printer. This data consists of four special-purpose messages and is in the ASCII format suitable for use with PC-based application programs. The messages are as follows:

Typical Message 1—sent out as soon as Caller ID data arrives from the CO

Message ID and Identifier (3 bytes)	Line No. (2 bytes)	Caller ID Data (15 bytes)	End of Message (2 bytes)
3E 3C 31	30 35	31 2D 38 30 34 2D 39 37 38 2D 32 32 30 30 20	0D 0A
> < 1	0 1	1 — 8 0 4 — 9 7 8 — 2 2 0 0	CR LF

Typical Message 2—sent when a ringing line with CID is answered or retrieved from hold

Message ID and Identifier (3 bytes)			Line No. (2 bytes)		Station No. (2 bytes)		End of Message (2 bytes)	
3E	3C	32	31	32	31	30	0D	0A
>	<	2	1	2	1	0	CR	LF

Typical Message 3—sent when CID data is not received from answered line or when line is taken off-hook

Message ID and Identifier (3 bytes)			Line No. (2 bytes)		Station No. (2 bytes)		End of Message (2 bytes)	
3E	3C	33	31	35	31	32	0D	0A
>	<	3	1	5	1	2	CR	LF

Typical Message 4—sent when line is made idle

Message ID and Identifier (3 bytes)			Line No. (2 bytes)		End of Message (2 bytes)	
3E	3C	34	30	35	0D	0A
>	<	4	0	5	CR	LF

Assigning Caller ID Lines (required programming)

Description

Programs lines to receive caller ID service.

To Program

1. Dial **47** *"CALLER ID LINES"*
2. Select line ports (LED On = Selected)
   Line Port 1–14 = Dial **01–14** or **A1–A14**
   Line Port 15, 16 = Dial **15**, **16** or press **B1**, **B2**
   Line Port 17–24 = Dial **17–24** or press **HOLD** and then press **A1–A8**.
3. Press ✳ for configuration mode.

Assigning Caller ID Stations (required programming)

Description

Programs stations to receive caller ID information.

To Program

1. Dial **53**. *"STATION FEATURES"*
2. Dial **36**. *"CALLER ID STA."*
3. Select station ports. (LED On = Selected)
   —Station 10–57 = Dial **10–57** or press **C10–C57**.
4. Press ✳✳ for configuration mode.

Configuring Data Port B/COM 2 Serial Data Port (required programming)

Description

If the data port B/COM 2 serial data port is not currently set at its default values (9600 baud, 8 data bits, and 1 stop bit) program that port to have those values so that it will receive caller ID data. Verify the baud rate settings from station 10.

To Program

1. Dial **15**. *"BAUD RATE"*
2. Dial **2** for data port B or COM 2.
3. Press **A10** for 9600 baud. *"W nD nS 9600"*
4. Dial **11** or press **A14** for 8 data bits and 1 stop bit. *"W 8D 1S ZZZZZ"*
5. Dial ✳✳ for configuration mode.

Setting the Audible First Ring Feature (optional programming)

Description

Turns on the Audible First Ring feature for the system.

To Program

1. Dial **17**. *"SYSTEM FEATURES"*
2. Dial **01**. *"CID FIRST RING"*
3. Dial **1** to enable the audible first ring (LED on)
   —OR—
   Dial **2** to silence the first ring on caller ID lines.
4. Press ✳✳ for configuration mode.

Setting the Caller ID Distribution (optional programming)

Description

Sends caller ID information to data port B for access by a PC.

To Program

1. Dial **17**. *"SYSTEM FEATURES"*
2. Dial **02**. *"CID DISTRIBUTION"*
3. Dial **1** to enable caller ID distribution (LED on)
   —OR—
   Dial **2** to disable caller ID distribution.
4. Press ✳✳ for configuration mode.

Assigning a SAVE Button (optional programming)

Description

Selects a **SAVE** button to display and redial the most recent caller ID number received at a station.

To Program

1. Dial **56**. *"BUTTON MAPPING"*
2. Dial **08**. *"ASSIGN SAVE"*
3. Select button to be programmed
   —press **A1–A14**, **B1–B10**.
4. Select station ports to have SAVE button (LED On = Assigned)
   —station 10–57 = Dial **10–57** or press **C10–C57**.
5. Press ✳✳✳ for configuration mode.

Notes

7 Programming the Unisyn for the Caller ID Feature

Caller ID Service Support

Program lines and stations for caller ID service using the instructions in this chapter.

NOTE: When programming using the telephone, a lighted LED next to the programming button for the selection indicates the current status. When a single button provides a toggle (on/off) action, the lighted LED indicates the active status.

Since the station receives caller ID data between the first and second rings, you can arrange for the first ring on caller ID lines to be either audible or silent. Selecting the silent option ensures that the caller ID data is displayed prior to ringing, eliminating the loss of caller ID data to premature answering.

All caller ID features require that the customer-supplied caller ID interface deliver its data to the system's RS232 data port B. You must configure this port to match the output of the decoder device. The recommended configuration is 9600 baud, with eight data bits and one stop bit.

The system provides caller ID information as part of the SMDR printout. An example of this appears below.

Caller ID Information on SMDR Printout

Call #	Station #	Line #	Date	Time	Call length	Answer Time	Called or Calling #
1	1000	6	10/15/92	04:38	0.1		12345678901 23456
2	12	3	10/15/92	00:56	0.2		5551212
3		1	10/15/92	00:56	NOANS	.2	/5551234
4	10	1	10/15/92	00:56	0.1	.1	/5551234
5		4	10/15/92	01:00	NOANS	.2	
6	10	4	10/15/92	01:00	0.1	.0	

(1) outgoing call
(2) outgoing call
(3) unanswered incoming call, with caller ID
(4) answered incoming call, with caller ID
(5) unanswered incoming call, without caller ID
(6) answered incoming call, without caller ID

If SMDR printout is not already turned on (default), turn it on as follows:

1. Press **ITCM** and dial ✳**#746**✳.
2. Dial **772**. *"SMDR PRINT XXX"*
3. Dial **1** to enable printout. *"SMDR PRINT ON"*
4. Dial ✳✳ for configuration mode or **SPEAKER** to quit.

Assigning Caller ID Lines (required programming)

Description

Programs lines to receive caller ID service.

To Program

1. Dial **47**. *"CALLER ID LINES"*
2. Select line ports (LED On = Selected)
   Line Port 1–6 = Dial **01–06** or press **B1–B6**.
3. Press ✳ for configuration mode.

Assigning Caller ID Stations (required programming)

Description

Programs stations to receive Caller ID information.

To Program

1. Dial **53**. *"STATION FEATURES"*
2. Dial **36**. *"CALLER ID STA."*
3. Select station ports. (LED On = Selected)
   —Station 10–25 = Dial **10–25** or press **A1–A16**.
4. Press ✳✳ for configuration mode.

Configuring Data Port B Serial Data Port (required programming)

Description

If serial data port B (labeled RS232 #2) is not currently set at its default values (9600 baud, 8 data bits, and 1 stop bit) program that port to have those values so that it will receive Caller ID data. Verify baud rate settings at station 10.

To Program

1. Dial **15**. *"BAUD RATE"*
2. Dial **2** for Data Port B.
3. Press **A11** for 9600 baud. *"W nD nS 9600"*
4. Dial **11** or press **A16** for 8 data bits and 1 stop bit. *"W 8D 1S ZZZZZ"*
5. Press ✳✳ for configuration mode.

Setting the Audible First Ring Feature (optional programming)

Description

Turns on the Audible First Ring feature for the system.

To Program:

1. Dial **17**. *"SYSTEM FEATURES"*
2. Dial **01**. *"CID FIRST RING"*
3. Dial **1** to enable the audible first ring (LED on).
   —OR—
   Dial **2** to silence the first ring on Caller ID lines.
4. Press ✳✳ for configuration mode.

8 Rules and Regulations

Federal Communications Commission (FCC) Rules and Regulations

FCC Part 15 RF Emission Information

This equipment contains incidental radio frequency generating circuitry and, if not installed and used properly, may cause interference to radio and television reception. This equipment has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area may cause interference to radio and television reception; in which case the user is encouraged to take whatever measures may be required to correct the interference. If this equipment does cause interference to radio and television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: reorient the television or radio receiving antenna, and/or relocate the system, the individual telephone stations, and the radio or television with respect to each other. If necessary, the user should consult the manufacturer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful: “How to Identify and Resolve Radio-TV Interference Problems.” This booklet is available from the Government Printing Office, Washington, DC, 20402. Stock No. 004-000-00345-4.

FCC Part 68 Information

This equipment complies with Part 68 of the FCC Rules. A label, located on the exterior lower left side of the cabinet, contains the FCC Registration Number(s) and Ringer Equivalence Number (REN).

This device uses FCC-compliant jack types RJ11.

This equipment may not be used on coin service provided by the telephone company. Connection to party lines is subject to state tariffs.

Should the equipment cause harm to the telephone network, the telephone company may disconnect your service temporarily. If possible, they will notify you in advance. If advanced notice is not practical, they will notify you as soon as possible. You will be informed of your right to file a complaint with the FCC. The telephone company may make changes in its facilities, equipment, operations or procedures that could affect the proper functioning of your equipment. If they do so, they will notify you in advance to give you an opportunity to maintain uninterrupted telephone service. In addition, the telephone company may ask that you disconnect this equipment from the network until the problem has been corrected or until you are sure that the equipment is not malfunctioning.

If you experience trouble with this equipment, please contact:

Comdial Corporation
P.O. Box 7266
Charlottesville, VA 22906-7266
Telephone: 1-804-978-2200

FCC Registration Number

The FCC Registration Number for the caller ID device is :**CVWUSA-25951-ND-N**.

Terms and Definitions

Ringer Equivalence Number (REN) is useful to determine the quantity of devices that may be connected to the telephone line and still have all of those devices ring when the telephone number is called. In most, but not all areas, the sum of the REN's of all devices connected to one line should not exceed five (5.0). To be certain of the number of devices that you may connect to your line, you may want to contact your local telephone company to determine the maximum REN for your calling area. The REN of the caller ID device is: 0.0B.

Universal Service Order Code Connector (USOC Con) defines the FCC Part 68 approved telco provided connector, electrically and mechanically, required to interface with the customer equipment. To avoid legal, warranty, insurance, and casualty problems, do not pass anything through the network connector other than those permitted in the FCC Part 68 RJ series connectors. The caller ID device uses an RJ11 FCC-compliant jack type. The RJ11 jack is a single-line, two-wire, T/R, two-position connector.

Industry Canada (IC) Rules and Regulations

Industry Canada RF Emission Information

This digital device does not exceed the Class A limits for radio noise emissions from digital apparatus set out in Radio Interference Regulations of Industry Canada.

Le pre'sent appareil nume'rique n'emet pes de bruits radioe'lectriques de'passant les limits applicables aux appareils nume'riques de la class A prescrites dans le Re'glement sur le brouillage radioe'lectrique e'dicte' par le ministe're des Industry Canada.

Industry Canada TELCO Information

NOTICE: The Industry Canada label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operational and safety requirements. Industry Canada does not guarantee the equipment will operate to the user's satisfaction.The Industry Canada Certification number for the four models of the caller ID device is: **584 9535 A**. The four caller ID models are: CID-08-C, CID-08-C-AR, CID-04-C, and CID-04-C-AR.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. In some cases, the company's inside wiring associated with a single line individual service may be extended by means of a certified connector assembly (telephone extension cord). The customer should be aware that compliance with the above condition may not prevent degradation of service in some situations.

Repairs to some certified equipment should be made by an authorized maintenance facility designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

CAUTION

Users should not attempt to make such connections themselves, but should contact the appropriate electrical inspection authority, or electrician, as appropriate.

NOTICE: The ringer equivalence number (REN) assigned to each terminal device provides an indication of the maximum number of terminals allowed to be connected to the telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the ringer equivalence numbers of all the devices does not exceed 5.

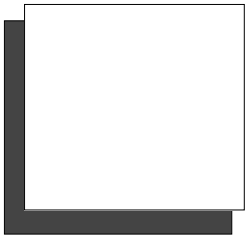
AVIS: L'etiquette de Industrie Canada identifie le materiel homologue. Cette etiquette certifie que le materiel est conforme a certaines normes de protection, d'exploitation et de securite des reseaux de telecommunications. Le Ministere n'assure toutefois pas que le materiel functionnera a la satisfaction de l'utilisateur. Avant d'installer ce materiel, l'utilisateur doit s'assurer quil est permis de le raccorder aux installations de l'entreprise locale de telecommunication. Le materiel doit eqalement etre installe en suivant une methode acceptee de raccordement. L'abonne ne doit pas oublier qu'il est possible que la conformite aux conditions enoncees ci-dessus n'empeche pas le degradation du service dans certaines situations. Les reparations de materiel homologue doivent etre effectuees par un centre d'entretien canadien autorise designe par le fournissuer. La compagnie de telecommunications peut demander a l'utilisateur de debrancher un appareil a la suite de reparations ou de modifications effectuees par l'utilisateur ou a cause de mauvais fonctionnement. Pour sa propre protection, l'utilisateur doit s'assurer que tous les fils de mise a la terre de la

source d’energie electrique, des lignes telephoniques et des canalisations d’eau metalliques, s’il y en a, sont raccorde ensemble. Cette precaution est particulierement importante dans les regions ruales.

AVERTISSEMENT

L’utilisateur ne doit pas tenter de faire ces raccordements luimeme; il doit avoir recours a un service d’inspection des installations d’inspection des installations electriques, ou a un electricien, selon le cas.

AVIS: L’indice d’equivalence de la sonnerie (IES) asssigne a chaque dispositif terminal indique le norbre maximal de terminaux qui peuvent etre raccordes a une interface. La terminaison d’une interface telephonique peut consister en une combinaison de quelques dispositifs, a la seule condition que la somme d’indices d’equivalence de la sonnerie de tous les dispositifs n’excede pas 5.



Index

A

Absorb Ring Time (16A) 22
Absorb Ring Time (pre-16A) 23
Activating Caller ID (16A) 21
Activating Caller ID (pre-16A) 23
Assigning Caller ID Lines 27, 32
Assigning Caller ID Stations 28, 32
Audible First Ring Feature 28

B

Baud Rate for Caller ID (16A) 22
Baud Rate for Caller ID (pre-16A) 23

C

Caller ID
- Activating (16A) 21
- Activating (pre-16A) 23
- Connecting 5
- Connecting to a TCI Caller ID 16, 17
- Connecting to another Caller ID 15
- Data from the CO 26
- Distribution 29
- DSU G0408 and G0816 Connections 13
- DSU G1632 Connections 13
- DSU II Connections 12
- DXP/Plus Connections 12
- Eight-Port Connections 6
- Four-Port Connections 6
- FXS/FXT Connections 12
- Introducing 1
- Mounting 4
- PC Connections (DB-25) 15
- PC Connections (DB-9) 14
- RNA Calls (16A) 22
- RNA Calls (pre-16A) 23
- Serial Connections 6
- Serial Connections to (Front View) 6
- Serial Port Connections 9
- Serial Ports 11
- Service Support 31
- Setting Baud Rate (16A) 22
- Setting Baud Rate (pre-16A) 23
- SMDR Printout 26, 31
- Stacking Eight-Port Devices 8
- Stacking Four-Port Devices 7
- Understanding the Serial Ports 11
- Unisyn Connections 14

Caller ID Boxes, Multiple 19
Caller ID Device 1
Caller ID Device, Installing 3
Caller ID Lines, Assigning 27, 32
Caller ID Service Support 25
Caller ID Stations, Assigning 28, 32
Caller ID Wall Mounting Template 4
CO Data 26
COM 2, Configuring 28
Connecting the Caller ID 5
Connection Matrix 9
Constructing the Local Call Table (16A) . . . 22
Constructing the Local Call Table (pre-16A) 24

D

Daisy-Chain Connection 16
Data Port B, Configuring 28
DB-25 Serial Port Connections 15
DB-9 Serial Port Connections 14
Deleting RNA Records (16A) 22

Deleting RNA Records (pre-16A) 24
Detailing the Line Connections 5
Diagram
Six-conductor Rolled Cable 10
DIP Switches 19
DIP Switches, Locating the 20
DIP Switches, Setting. 19
Distribution 29
DSU G0408 and G0816 Connections 13
DSU G1632, Connecting a Caller ID to. . . . 13
DSU II Connections 12
DSU/DSU II Programming 25
DXP/Plus and FXS/FXT 21

E

Eight-Port Caller ID 6, 8

F

FCC Registration Number 34
FCC Rules and Regulations 33
First Ring Feature. 28
Four-Port Caller ID 6, 7
FXS/FXT Connections. 12

I

Industry Canada (IC)
RF Emission Info 35
Rules and Regulations 35
Industry Canada (IC)
TELCO Info 35
Installation Instructions for the System 3
Installing the Caller ID Device 3

L

Line Connections, Detailing the. 5
Local Call Table, Constructing (16A) 22
Local Call Table, Constructing (pre-16A) . . 24
Locating the DIP Switches. 20

M

Mounting the Caller ID 4
Multiple Caller ID Boxes 19

P

PC DB-25 Serial Port Connections 15
PC DB-9 Serial Port Connections 14
Programming DXP/Plus and FXS/FXT 21

R

Registration Number, FCC. 34
RF Emissions 33
Ringer Equivalence Number (REN) 34
RNA Calls (16A) 22
RNA Calls (pre-16A) 23
RNA Records, Deleting (16A). 22
RNA Records, Deleting (pre-16A) 24
Rules and Regulations 33

S

SAVE Button, Assigning 29
Serial Ports, Understanding Caller ID's 11
Service Support, Caller ID 31
Six-Conductor Rolled Cable Diagram 10
SMDR Printout. 26, 31
SMDR Printout, Turning On 31
System Installation Instructions 3

T

TCI Connections 18
TELCO Information, Industry Canada 35
Terms and Definitions 34

U

U. L. Installation Notice. 3
Unisyn Connections 14
Unisyn Programming 31
USOC Connector 34

This manual has been developed by Comdial Corporation (the "Company") and is intended for the use of its customers and service personnel. The information in this manual is subject to change without notice. While every effort has been made to eliminate errors, the Company disclaims liability for any difficulties arising from the interpretation of the information contained herein.

The information contained herein does not purport to cover all details or variations in equipment or to provide for every possible contingency to be met in connection with installation, operation, or maintenance. Should further information be desired, or should particular problems arise which are not covered sufficiently for the purchaser's purposes, contact Comdial, Inside Sales Department, Charlottesville, Virginia 22906

COMDIAL®

The Rising Star™

Comdial Corporation
P.O. Box 7266
Charlottesville, VA
22906-7266
1-800-COMDIAL
www.comdial.com

IMI89–320.03 10/00
printed in U.S.A.

Printed in U.S.A.
709810-724 Rev.1